Elkanah Leonard.
Shingle Machine.

№ 453. Patented Nov 4 1837.

Fig. 1.

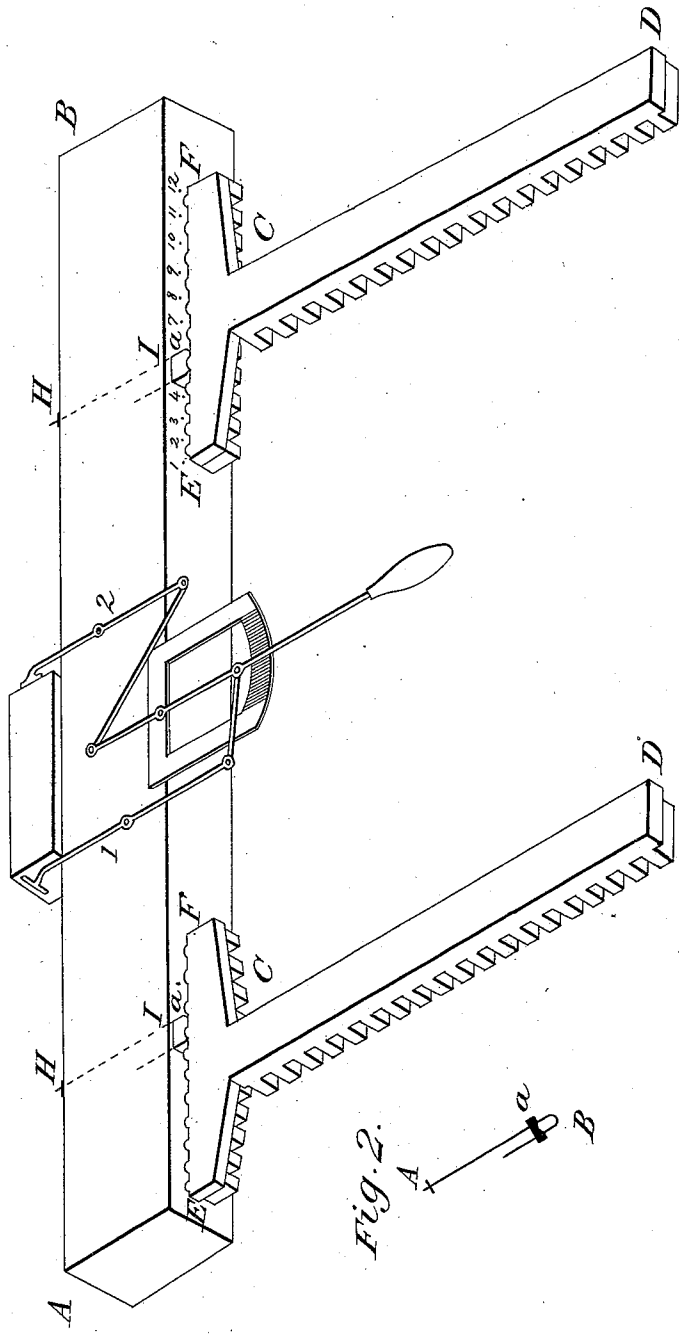

Fig. 2.

UNITED STATES PATENT OFFICE.

ELKANAH LEONARD, OF CANTON, MAINE.

MODE OF CONSTRUCTING THE GAGES OF MACHINES FOR SAWING SHINGLES.

Specification forming part of Letters Patent No. 453, dated November 4, 1837; Reissued October 26, 1838, No. 5.

To all whom it may concern:

Be it known that I, ELKANAH LEONARD, of Canton, in the county of Oxford and State of Maine, have invented a new and useful Improvement in Set Works of Machines for Sawing Shingles; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in providing the common shingle machines with racks or gages to regulate the set, (instead of those now in use) so constructed that without being moved they may be attached to the sliding block at a greater or less distance from its center, thereby varying the set so that shingles of varying lengths and of an equal thickness and different thicknesses of the same length may be sawed in the same machine.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation: I construct my machines except the gages in the common forms of those now in use, (Drake's, Hobbs's and perhaps some others excepted) and like the common shingle machines, I make my gages of cast iron and use two to each machine; one at each end of the sliding block.

Let A B on the drawing Figure 1 be the sliding block to which the dogs 1, 2 are attached that hold the block from which the shingles are sawed; C D a part of the rack or gage, with teeth like those now in use; but differing in different kinds of machines; E F an additional part or piece, on the end of the common gage next the sliding block, and running out on one or both sides of the other part of the gage, according to the construction of the machine in which it is to be used. There are pivots either on the upper or under side, by which the gage is attached to the sliding block. The pivots are $1\frac{1}{4}$ inches apart from their centers or thereabout, or else half that distance; by flattening the sides next each other and making them in the shape of the space left between the turn of the hook and the piece *a*, Fig. 2, their centers may be brought within $\frac{5}{8}$ of an inch of each other. The pivots project out a little toward the sliding block, and run across that edge of the gage to the opposite side; so that they will fit into a plate on the side of the piece *a*. *a* is a small piece of iron placed between the pivot by which the gage is attached and the sliding block, of sufficient thickness to prevent the other pivots from striking the sliding block when the machine sets. The side next the gage has a flute or hollow in it perpendicularly so that it will fit and turn a little, on the projecting part of the pivot. The dotted lines H I are a representation of the hook that holds the gage when it is in the sliding block. The dots 1, 2, 3, and 6 are holes in the sliding-block between each of the pivots and running through it horizontally at equal distances from each other; so that the hook will go around either of the pivots and into two holes in the sliding-block without moving the gage. Fig. 2 is a representation of the hook with the piece A, when out of the machine. The hook is made of a small rod of iron and passes around one of the pivots, then around or through the piece A, and then through the holes in the sliding-block and holds the gage snug in its place by having on the end of it a screw and nut. It may be made in the form here represented, or both parts may be of the same length forming a staple and having a nut on each part.

The gages may be held from rising by rabbeting out the corner of the sliding block on the underside next the gages and letting the part of the gage E F slip into the rabbet, or otherwise. This improvement is calculated to be applied to machines that set alternately at each end of the sliding block.

The gages must be attached each at the same distance from the center of the sliding block; therefore by moving the hook or staple and the piece A, from one pivot to another; and consequently from one set of holes to another the set may be varied with ease.

What I claim as my invention and desire to secure by Letters Patent is—

The method of changing the attachment between the gages and the sliding block at a greater or lesser distance from the center of the latter and the method of attaching herein described.

ELKANAH LEONARD.

Witnesses:

WILLIAM THOMPSON,

OAKES THOMPSON.

[FIRST PRINTED 1914.]